

REMARKS

As a preliminary matter, Applicants thank Examiner Robinson for the courtesy extended during the telephone call with Applicants' representative Ann Chen on June 21, 2007.

Claims 50 and 52-59 are pending in the application. Claim 51 has been canceled without prejudice. Applicants reserve the right to pursue the subject matter of the cancelled claim in one or more related applications.

Claim 50 has been amended to clarify certain embodiments of the present invention. Support for the recitation "a cytostatic amount of a free therapeutic agent that inhibits a vascular smooth muscle cell activity without killing the cell" can be found in the originally-filed specification at, *inter alia*, page 7, lines 15-18; page 31, lines 21-24; page 35, lines 5-8; page 68, lines 14-16; and Examples 8 and 10. Furthermore, support for the proposition that claims can be properly amended to exclude one or more species of a genus when the specification provides a generic disclosure of the genus and numerous species within the genus, including the species being excluded from the scope of the claim, can be found in *In re Johnson*, 558 F.2d 1008, 1019, 194 U.S.P.Q. 187, 196 (CCPA, 1977) (see also § 2173.05(i) of the Manual of Patent Examining Procedure, Eighth Edition, Revision 5, August 2006, at page 2100-221). Here, the specification provides a generic disclosure of reduction of restenosis using therapeutic agents and numerous species of therapeutic agents that may be used in the method for reducing restenosis (see page 7, lines 15-26; page 20, lines 33-36; page 31, line 8, to page 32, line 3; and page 35, lines 25-26). Accordingly, claim 50 can be properly amended to exclude certain therapeutic agents.

New claims 56-59 have been added. Support for the new claims can be found, *inter alia*, in the originally-filed specification as set forth in the table below:

<u>Claim</u>	<u>Support</u>
56	page 30, lines 29-35, and page 31, line 8 to page 32, line 3.
57	page 31, lines 1-4; and page 32, lines 17-20
58	page 22, lines 4-7; page 32, lines 17-18; and page 35, lines 13-14
59	page 6, lines 35-36

I. INFORMATION DISCLOSURE STATEMENT

In the Office Action, the Examiner indicated that several references in the List of References Cited by Applicant ("List") filed on June 16, 2006 represent improper citations. In response, Applicants submit herewith a revised List with the corrected citations.

II. THE WRITTEN DESCRIPTION REJECTION UNDER 35 U.S.C. § 112, FIRST PARAGRAPH, SHOULD BE WITHDRAWN

Claims 50-55 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the Examiner alleges that the claims broadly read on any "therapeutic agents" which encompasses a genus of inhibitors not adequately described in the instant specification.

Although Applicants disagree, solely to expedite the prosecution of the instant application, Applicants have amended claim 50 to recite that it is a cytostatic amount of a free therapeutic agent (and not the therapeutic agent *per se*) that inhibits a vascular smooth muscle cell activity without killing the cell, and that is used in the method for reducing restenosis following a vascular surgical procedure. Claim 50, as amended, further recites that the free therapeutic agent is not heparin, a radioisotope, a nitric oxide-releasing compound, suramin, methotrexate, adriamycin, a protein kinase inhibitor, staurosporin, an antisense oligonucleotide, a peptidic inhibitor, a growth factor inhibitor, a smooth muscle growth factor inhibitor, an endothelial growth factor inhibitor, a platelet inhibitor, integrin, triazolopyrimidine, or a prostaglandin. Claims 52-59 depend from claim 50 and therefore include the recitations of claim 50. For the following reasons, Applicants submit that the specification provides sufficient written description for the subject matter of amended claim 50 and its dependent claims.

An applicant can show possession of the claimed invention by describing the claimed invention with a relevant, identifying characteristic. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 U.S.P.Q.2d 1961, 1966 (Fed. Cir. 1997).

The specification describes a method for reducing restenosis following a vascular surgical procedure, comprising locally administering to a human a biocompatible, non-biodegradable sustained release dosage form (see, *e.g.*, page 4, lines 10-13; page 11, lines 2-9; page 23, lines 11-21; and page 24, line 7, to page 25, line 9). The sustained release dosage

form also comprises a cytostatic amount of a free therapeutic agent dispersed in a polymer matrix (see, *e.g.*, page 24, lines 33-35), wherein said cytostatic amount of said free therapeutic agent inhibits a vascular smooth muscle cell activity without killing the cell (see, *e.g.*, page 7, lines 15-18; page 31, lines 21-24; page 35, lines 5-8; page 68, lines 14-16; and Examples 8 and 10). In fact, the specification provides several non-limiting examples of ranges of cytostatic amounts for a number of therapeutic agents that inhibits a vascular smooth muscle cell activity (*e.g.*, migration) without killing the cell (see, *e.g.*, Examples 8 and 10). A such, Applicants submit that one skilled in the art, based on the disclosure of the specification, would recognize that Applicants were in possession of the claimed methods comprising administering a cytostatic amount of a therapeutic agent that inhibits a vascular smooth muscle cell activity without killing the cell.

For the foregoing reasons, Applicants respectfully request that the rejection be withdrawn.

III. THE ENABLEMENT REJECTION UNDER 35 U.S.C. § 112, FIRST PARAGRAPH, SHOULD BE WITHDRAWN

Claims 50-55 are rejected under 35 U.S.C. § 112, first paragraph, allegedly because the specification, while being enabling for a method of reducing restenosis by administering taxol, does not reasonably provide enablement for any therapeutic agent/inhibitor employed by the method. For the following reasons, Applicants submit that the specification teaches how to make and use the invention recited in amended claim 50 and its dependent claims.

The specification teaches a person skilled in the art how to determine, without undue experimentation, whether a cytostatic amount of a therapeutic agent inhibits a vascular smooth muscle cell activity without killing the cell. In particular, the specification describes that a cytostatic amount of a therapeutic agent inhibits a vascular smooth muscle cell activity without killing the cell by exerting a relatively minimum effect on protein synthesis and a relatively larger effect on DNA synthesis (see, *e.g.*, page 35, lines 5-8; page 68, lines 12-16; and Examples 8 and 10). For example, the specification teaches a person skilled in the art how to determine whether a cytostatic amount of a therapeutic agent inhibits a vascular smooth muscle cell activity such as cell migration by using, for example, time-lapse cinematography or molecular scratch assay (see, *e.g.*, page 16, lines 18-24; and Example 11). The specification also teaches a person skilled in the art how to determine whether a therapeutic agent exerts a relatively minimum effect on protein synthesis (*i.e.*, does not substantially inhibit

protein synthesis) by using, for example, ³H-leucine protein inhibition assay (see, *e.g.*, Examples 8 and 10). Furthermore, the specification teaches a person skilled in the art how to determine whether a therapeutic agent exerts a relatively larger effect on DNA synthesis (*i.e.*, substantially inhibits DNA synthesis) by using, for example, ³H-thymidine DNA synthesis inhibition assay (see, *e.g.*, Examples 8 and 10). The specification has provided numerous working examples on measuring ranges of cytostatic amount for several therapeutic agents (see, *e.g.*, Examples 8 and 10).

Applicants further submit that the relative skill level of those in the art is high and a practitioner in the art is capable of designing substantially equivalent testing protocols to identify a cytostatic amount of a therapeutic agent that may be used in the claimed invention. While *some* experimentation might be necessary to practice the present invention, the quantity of experimentation necessary would not be unduly burdensome to the skilled artisan.

For the foregoing reasons, Applicants respectfully submit that the rejection is in error and should be withdrawn.

IV. THE CLAIM REJECTIONS UNDER 35 U.S.C. § 102 SHOULD BE WITHDRAWN

1. The Claims Are Not Anticipated By Ringer et al.

Claims 50-51 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Ringer *et al.* (JNCI, 1991, vol. 83(4), pages 288-91) (“Ringer”). For the following reasons, Applicants respectfully disagree.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987); see also *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989) (holding that “[t]he identical invention must be shown in as complete detail as is contained in the...claim”).

Ringer discloses a new semisynthetic analogue of taxol (*i.e.*, taxotere) for the treatment of cancer (see Abstract). However, Ringer does not teach or suggest a cytostatic amount of a therapeutic agent that inhibits a vascular smooth muscle cell activity without killing the cell, much less teach or suggest a method for reducing restenosis following a vascular surgical procedure by administering such cytostatic amount of the therapeutic agent, as recited in amended claim 50. Ringer also does not teach or suggest any therapeutic agent being dispersed in a polymer matrix. Nor does Ringer teach or suggest a therapeutic agent

being administered in a sustained release dosage form. For the foregoing reasons, Ringer fails to disclose each and every element of amended claim 50. As such, Applicants submit that amended claim 50 and its dependent claims are not anticipated by Ringer.

2. The Claims Are Not Anticipated By Bissery et al.

Claims 50-55 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Bissery *et al.* (Cancer Research, 1991, vol. 51, pages 4845-4852) ("Bissery"). For the following reasons, Applicants respectfully disagree.

Bissery discloses the anti-tumor activities of a semisynthetic analogue of taxol (*i.e.*, taxotere) (see Abstract). However, Bissery does not teach or suggest a cytostatic amount of a therapeutic agent that inhibits a vascular smooth muscle cell activity without killing the cell, much less teach or suggest a method for reducing restenosis following a vascular surgical procedure by administering such cytostatic amount of the therapeutic agent, as recited in amended claim 50. Bissery also does not teach or suggest a therapeutic agent being administered in a sustained release dosage form. For the foregoing reasons, Bissery fails to disclose each and every element of amended claim 50. As such, Applicants submit that amended claim 50 and its dependent claims are not anticipated by Bissery.

CONCLUSION

As all rejections are believed to be overcome, all claims are believed to be in condition for allowance. An early notice to that effect would be appreciated. Should the Examiner not agree with Applicants' position, then a personal or telephonic interview is respectfully requested to discuss any remaining issues and expedite the eventual allowance of the application. No fee is believed to be due. If any other fees are due, please charge the required fees to Jones Day Deposit Account No. 50-3013.

Respectfully submitted,

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Enclosures